

We claim:

- 1        1.        A power system comprising:  
2            a plurality of source inputs that are connectable to a plurality of input sources;  
3            an OR circuit coupled to the source inputs and having an output;  
4            a standby converter coupled to the OR circuit output that provides a voltage  
5 rail responsive to a sufficient source voltage at the OR circuit output;  
6            a power control circuit that is coupled to the standby converter and, responsive  
7 to a control signal, provides a working voltage; and  
8            at least one converter circuit that converts the working voltage to a supply  
9 voltage.
- 1        2.        The power system of claim 1 wherein the OR circuit is a diode OR  
2 circuit.
- 1        3.        The power system of claim 1 further including a power switch that  
2 couples the working voltage to the at least one converter circuit.
- 1        4.        The power system of claim 3 wherein the power switch is a power FET.
- 1        5.        The power system of claim 1 wherein the power control circuit is further  
2 responsive to command signals to provide the working voltage.
- 1        6.        The power system of claim 5 wherein the at least one converter circuit  
2 provides at least one of the command signals.
- 1        7.        The power system of claim 1 wherein the at least one converter circuit  
2 includes a mid-rail converter.
- 1        8.        The power system of claim 1 wherein the at least one converter circuit  
2 includes a low-rail converter.
- 1        9.        The power system of claim 8 wherein the at least one converter circuit  
2 further includes a mid-rail converter.
- 1        10.       A power system comprising:  
2            a plurality of source inputs that are connectable to a like plurality of DC voltage  
3 input sources;  
4            an OR circuit coupled to the source inputs and having an output;

5 a standby converter coupled to the OR circuit output that provides a voltage  
6 rail responsive to a sufficient source voltage at the OR circuit output;  
7 a power control circuit that is coupled to the standby converter and, responsive  
8 to a control signal, provides a working voltage; and  
9 a plurality of converter circuits that convert the working voltage to a plurality of  
10 different DC supply voltages.

1 11. The power system of claim 10 wherein the OR circuit is a diode OR  
2 circuit.

1 12. The power system of claim 10 further including a power switch that  
2 couples the working voltage to the at least one converter circuit.

1 13. The power system of claim 12 wherein the power switch is a power  
2 FET.

1 14. The power system of claim 10 wherein the power control circuit is  
2 further responsive to command signals to provide the working voltage.

1 15. The power system of claim 14 wherein the plurality of converter circuits  
2 provides one of the command signals.

1 16. The power system of claim 10 wherein the plurality of converter circuits  
2 includes a mid-rail converter.

1 17. The power system of claim 10 wherein the plurality of converter circuits  
2 includes a low-rail converter.

1 18. A power system comprising:  
2 a plurality of source inputs that are connectable to a like plurality of DC voltage  
3 input sources;  
4 a diode OR circuit coupled to the source inputs and having an output;  
5 a standby converter coupled to the OR circuit output that provides a voltage  
6 rail responsive to a sufficient source voltage at the OR circuit output;  
7 a power control circuit that is coupled to the standby converter and, responsive  
8 to a control signal, provides a working voltage; and  
9 a plurality of converter circuits that convert the working voltage to a plurality of  
10 supply voltages; and

11           a power switch that couples the working voltage from the control circuit to the  
12 converter circuits.

1           19.    The power system of claim 18 wherein the power switch is a power  
2 FET.

1           20.    The power system of claim 18 wherein the power control circuit is  
2 further responsive to command signals to provide the working voltage.

1           21.    The power system of claim 20 wherein the plurality of converter circuits  
2 provides at least one of the command signals.

1           22.    The power system of claim 18 wherein the plurality of converter circuits  
2 includes a mid-rail converter.

1           23.    The power system of claim 18 wherein the plurality of converter circuits  
2 includes a low-rail converter.

1           24.    A method of providing a supply voltage comprising:  
2           providing a plurality of source input voltages;  
3           ORing the source input voltages to providing a source voltage;  
4           monitoring the source voltage;  
5           generating a control signal responsive to the source voltage being above a  
6 given level;  
7           a responsive to the control signal, providing a working voltage from the source  
8 voltage; and  
9           converting the working voltage to a supply voltage.

1           25.    The power system of claim 2 wherein the diode OR is a Schottky power  
2 diode OR circuit.